

# Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



# Maine Agricultural Experiment Station

BULLETIN No. 71.

FEBRUARY, 1901.

## FEEDING STUFF INSPECTION.

---

This Bulletin contains the analyses of samples of Feeding Stuffs collected by the inspectors, December, 1900.

---

Requests for the Bulletins should be addressed to the  
EXPERIMENT STATION,  
Orono, Maine.

# MAINE

## AGRICULTURAL EXPERIMENT STATION

### ORONO, MAINE.

---

#### THE STATION COUNCIL.

PRESIDENT ABRAM W. HARRIS . . . . .	<i>President</i>
DIRECTOR CHARLES D. WOODS . . . . .	<i>Secretary</i>
EDWARD B. WINSLOW, Portland . . . . .	} <i>Committee of Board of Trustees</i>
VORANUS C. COFFIN, Harrington . . . . .	
JOHN A. ROBERTS, Norway . . . . .	
B. WALKER MCKEEN, Fryeburg . . . . .	<i>State Board of Agriculture</i>
EUGENE HARVEY LIBBEY, Auburn . . . . .	<i>State Grange</i>
CHARLES S. POPE, Manchester . . . . .	<i>State Pomological Society</i>
JAMES M. BARTLETT . . . . .	} <i>Members of the Station Staff</i>
LUCIUS H. MERRILL . . . . .	
FREMONT L. RUSSELL . . . . .	
WELTON M. MUNSON . . . . .	
GILBERT M. GOWELL . . . . .	
GILMAN A. DREW . . . . .	

#### THE STATION STAFF.

##### THE PRESIDENT OF THE UNIVERSITY.

CHARLES D. WOODS . . . . .	<i>Director</i>
JAMES M. BARTLETT . . . . .	<i>Chemist</i>
LUCIUS H. MERRILL . . . . .	<i>Chemist</i>
FREMONT L. RUSSELL . . . . .	<i>Veterinarian</i>
WELTON M. MUNSON . . . . .	<i>Horticulturist</i>
GILBERT M. GOWELL . . . . .	<i>Stock Breeding and Poultry</i>
GILMAN A. DREW . . . . .	<i>Zoologist</i>
LUCIUS J. SHEPARD . . . . .	<i>Assistant in Agriculture</i>
ORA W. KNIGHT . . . . .	<i>Assistant Chemist</i>
EDWARD R. MANSFIELD . . . . .	<i>Assistant Chemist</i>
CLIFFORD D. HOLLEY . . . . .	<i>Assistant Chemist</i>
PERLEY SPAULDING . . . . .	<i>Assistant in Horticulture</i>

## FEEDING STUFF INSPECTION.

CHAS. D. WOODS, Director.

J. M. BARTLETT, chemist in charge of inspection analyses.

### CHIEF REQUIREMENTS OF THE LAW.

The points of the law of most interest to dealer and consumer are:

*Kinds of Feed coming within the Law.* The law applies to *all feeding stuffs except* hays and straws; whole seeds and meals of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn; wheat, buckwheat and rye brans or middlings *not mixed with other substances*, but sold separately, as distinct articles of commerce.

*Inspection tax and tag.* To meet the expenses of inspection, a tax of ten cents per ton must be paid to the Director of the Maine Agricultural Experiment Station, who is required to furnish a tag stating that all charges have been paid. This tag, which bears the Director's signature, shows that the tax has been paid but is *not a guarantee of the quality of the goods*.

*The brand.* Each package of feeding stuff included within the law shall have affixed the inspection tax tag and shall also bear, conspicuously printed: the number of net pounds contained in the package, the name or trade mark under which it is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business of manufacturer or shipper, the percentage of crude protein, the percentage of crude fat. These statements may be printed directly on the bag, on a tag attached to the package, or on the back of the inspection tax tag furnished by the Director of the Station. The quality of the goods is guaranteed by the manufacturer, importer or dealer, *and not by the Station*. The samples collected and analyzed by the Station show whether the goods are up to guarantee or not.

The goods must carry the inspection tax tag and the brand before they can be legally offered for sale in the State. It will not answer to affix tags at the time the goods are sold.

## MANUFACTURERS AND PLACE OF SAMPLING.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
9120	American Cotton Oil Co .....	Greenville, S. C....	Biddeford .....
9077	American Cotton Oil Co .....	Wilmington, N. C..	Newport .....
9090	American Cotton Oil Co .....	Wilmington, N. C..	Palmyra .....
9121	American Cotton Oil Co .....	Macon, Ga .....	Gardiner .....
9122	American Cotton Oil Co .....	Memphis, Tenn....	Newport .....
9123	American Cotton Oil Co .....	Memphis, Tenn....	Hiram .....
9124	American Cotton Oil Co .....	Jackson, Tenn....	Portland .....
9125	American Cotton Oil Co .....	Jackson, Tenn....	Bridgton .....
9126	American Cotton Oil Co .....	Jackson, Tenn....	Brunswick .....
9127	American Cotton Oil Co .....	Binkley, Ark.....	Hallowell .....
9128	American Cotton Oil Co .....	Binkley, Ark.....	Auburn .....
9129	American Cotton Oil Co .....	Binkley, Ark.....	Camden .....
9130	American Cotton Oil Co .....	Little Rock, Ark...	Foxcroft .....
9131	American Cotton Oil Co .....	Little Rock, Ark...	Westbrook .....
9117	American Cotton Oil Co .....	.....	Lewiston .....
9104	American Cotton Oil Co .....	.....	Corinna .....
9083	R. W. Biggs & Co .....	Memphis, Tenn....	Athens .....
9105	R. W. Biggs & Co .....	Memphis, Tenn....	East Newport....
9106	R. W. Biggs & Co .....	Memphis, Tenn....	East Newport .....
9133	R. W. Biggs & Co .....	Memphis, Tenn....	Waterville .....
9134	R. W. Biggs & Co .....	Memphis, Tenn....	Bangor .....
9135	R. W. Biggs & Co .....	Memphis, Tenn....	Belfast .....
9136	R. W. Biggs & Co .....	Memphis, Tenn....	Bath .....
9149	R. W. Biggs & Co .....	Memphis, Tenn....	Richmond .....
9151	R. W. Biggs & Co .....	Memphis, Tenn....	Brownfield .....
9140	F. W. Brodé & Co .....	Memphis, Tenn....	Brunswick .....
9141	F. W. Brodé & Co .....	Memphis, Tenn....	Pittsfield .....
9142	F. W. Brodé & Co .....	Memphis, Tenn....	Augusta .....
9143	F. W. Brodé & Co .....	Memphis, Tenn....	Belfast .....
9102	F. W. Brodé & Co .....	Memphis, Tenn....	North Gorham....
9114	Chapin & Co .....	St. Louis, Mo.....	East Fryeburg....
9119	Chapin & Co .....	St. Louis, Mo.....	Readfield .....
9144	Chapin & Co .....	St. Louis, Mo.....	Augusta .....
9145	Chapin & Co .....	St. Louis, Mo.....	Dexter .....
9146	Chapin & Co .....	St. Louis, Mo.....	Bowdoinham .....
9147	Chapin & Co .....	St. Louis, Mo.....	Monmouth .....
9148	Chapin & Co .....	St. Louis, Mo.....	Skowhegan .....
9154	Chapin & Co .....	St. Louis, Mo.....	Portland .....
9161	Chapin & Co .....	St. Louis, Mo.....	Pittsfield .....
9162	Chapin & Co .....	St. Louis, Mo.....	Fryeburg .....
9152	A. R. Hopkins & Co .....	.....	South Brewer....
9150	Butler, Breed Co .....	.....	Brunswick .....
9089	Humphreys, Goodwin & Co .....	Memphis, Tenn....	Palmyra .....
9107	Humphreys, Goodwin & Co .....	Memphis, Tenn....	East Newport .....
9137	Humphreys, Goodwin & Co .....	Memphis, Tenn....	Waterville .....
9138	Humphreys, Goodwin & Co .....	Memphis, Tenn....	Biddeford .....
9139	Humphreys, Goodwin & Co .....	Memphis, Tenn....	Newport .....
9155	Hunter Brothers .....	St. Louis, Mo.....	Bangor .....
9160	Hunter Brothers .....	St. Louis, Mo.....	Portland .....
9163	Hunter Brothers .....	St. Louis, Mo.....	Belfast .....
9132	Independent Cotton Oil Co .....	Memphis, Tenn....	South Paris .....
9153	J. E. Soper & Co .....	.....	Lewiston .....



## ANALYSES OF SAMPLES.

Name of Feed.	PROTEIN.		FAT.		Station number.
	Found— per cent.	Guaranteed per cent.	Found— per cent.	Guaranteed per cent.	
Prime Cotton Seed Meal .....	45.69	41.50	10.16	9.00	9120
Prime Cotton Seed Meal .....	41.90	41.50	8.77	9.00	9077
Prime Cotton Seed Meal .....	43.50	41.00	9.03	9.00	9090
Prime Cotton Seed Meal .....	46.69	43.00	8.64	9.00	9121
Prime Cotton Seed Meal .....	44.69	43.00	9.55	9.00	9122
Prime Cotton Seed Meal .....	44.38	43.00	9.80	9.00	9123
Prime Cotton Seed Meal .....	46.06	43.00	9.50	9.00	9124
Prime Cotton Seed Meal .....	43.06	43.00	10.00	9.00	9125
Prime Cotton Seed Meal .....	44.25	43.00	10.42	9.00	9126
Prime Cotton Seed Meal .....	43.00	43.00	12.51	9.00	9127
Prime Cotton Seed Meal .....	44.38	43.00	11.27	9.00	9128
Prime Cotton Seed Meal .....	43.13	43.00	13.91	9.00	9129
Prime Cotton Seed Meal .....	44.25	43.00	9.86	9.00	9130
Prime Cotton Seed Meal .....	45.44	43.00	10.00	9.00	9131
Prime Cotton Seed Meal .....	45.00	43.00	10.79	9.00	9117
Prime Cotton Seed Meal .....	42.63	43.00	10.17	9.00	9104
"Canary" Brand Cotton Seed Meal.....	41.25	43.00	12.75	9.00	9083
"Canary" Brand Cotton Seed Meal.....	40.13	43.00	14.16	9.00	9105
"Canary" Brand Cotton Seed Meal.....	43.19	43.00	9.18	9.00	9106
"Canary" Brand Cotton Seed Meal.....	43.63	43.00	9.13	9.00	9133
"Canary" Brand Cotton Seed Meal.....	44.13	43.00	9.47	9.00	9134
"Canary" Brand Cotton Seed Meal.....	44.00	43.00	9.66	9.00	9135
"Canary" Brand Cotton Seed Meal.....	44.94	43.00	8.99	9.00	9136
"Canary" Brand Cotton Seed Meal.....	43.00	43.00	11.83	9.00	9149
"Canary" Brand Cotton Seed Meal.....	43.88	43.00	10.96	9.00	9151
Owl Brand Pure Cotton Seed Meal.....	44.38	43.00	8.76	9.00	9140
Owl Brand Pure Cotton Seed Meal.....	44.06	43.00	8.97	9.00	9141
Owl Brand Pure Cotton Seed Meal.....	45.88	43.00	9.28	9.00	9142
Owl Brand Pure Cotton Seed Meal.....	47.19	43.00	10.29	9.00	9143
Owl Brand Pure Cotton Seed Meal.....	46.88	43.00	9.65	9.00	9102
Cotton Seed Meal .....	41.88	43.00	9.26	9.00	9114
Cotton Seed Meal .....	40.63	43.00	10.53	9.00	9119
Cotton Seed Meal .....	46.81	43.00	8.48	9.00	9144
Cotton Seed Meal .....	46.81	43.00	9.57	9.00	9145
Cotton Seed Meal .....	44.00	43.00	8.64	9.00	9146
Cotton Seed Meal .....	46.50	43.00	9.74	9.00	9147
Cotton Seed Meal .....	46.38	43.00	9.93	9.00	9148
Cotton Seed Meal .....	46.19	43.00	11.11	9.00	9154
Cotton Seed Meal .....	44.50	43.00	9.84	9.00	9161
Cotton Seed Meal .....	42.06	43.00	9.18	9.00	9162
Prime Cotton Seed Meal.....	43.06	40.00	9.29	8.00	9152
Cotton Seed Meal .....	36.69	25.00	8.95	6.00	9150
"Dixie" Brand Cotton Seed Meal.....	43.50	43.00	11.22	9.00	9089
"Dixie" Brand Cotton Seed Meal.....	46.00	43.00	9.16	9.00	9107
"Dixie" Brand Cotton Seed Meal.....	44.88	43.00	9.52	9.00	9137
"Dixie" Brand Cotton Seed Meal.....	44.00	43.00	9.30	9.00	9138
"Dixie" Brand Cotton Seed Meal.....	45.63	43.00	10.67	9.00	9139
Prime Cotton Seed Meal .....	46.75	43.00	9.75	9.00	9155
Prime Cotton Seed Meal .....	45.63	43.00	8.67	9.00	9160
Prime Cotton Seed Meal .....	46.44	43.00	9.40	9.00	9163
Prime Finely Ground Cotton Seed Meal	45.69	43.00	13.75	9.00	9132
Prime Cotton Seed Meal .....	42.63	43.00	7.97	9.00	9153

## MANUFACTURERS AND PLACE OF SAMPLING.

Station number.	Manufacturer and Jobber.	Manufactured at	Sampled at
9156	.....	.....	Auburn .....
9158	.....	.....	Readfield .....
9157	.....	.....	Dexter .....
9159	.....	.....	Bath .....
9164	.....	.....	Norway .....
9165	Glucose Sugar Refining Co .....	.....	Pittsfield .....
9166	Glucose Sugar Refining Co .....	.....	Camden .....
9167	Glucose Sugar Refining Co .....	.....	Bath .....
9169	Glucose Sugar Refining Co .....	.....	Skowhegan .....
9172	Glucose Sugar Refining Co .....	.....	Waterville .....
9175	Glucose Sugar Refining Co .....	.....	Hallowell .....
9176	Glucose Sugar Refining Co .....	.....	Foxcroft .....
9168	Glucose Sugar Refining Co .....	.....	Biddeford .....
9170	Glucose Sugar Refining Co .....	.....	South Brewer .....
9171	Glucose Sugar Refining Co .....	.....	Belfast .....
9173	Glucose Sugar Refining Co .....	.....	Bridgton .....
9174	Glucose Sugar Refining Co .....	.....	Auburn .....
9100	Glucose Sugar Refining Co .....	.....	North Yarmouth .....
9177	Charles Pope Glucose Co .....	.....	Waterville .....
9178	Charles Pope Glucose Co .....	.....	Gardiner .....
9179	Charles Pope Glucose Co .....	.....	South Paris .....
9180	Charles Pope Glucose Co .....	.....	Orrington .....
9181	Charles Pope Glucose Co .....	.....	Westbrook .....
9182	Charles Pope Glucose Co .....	.....	Brunswick .....
9183	National Starch Manf'g Co .....	Des Moines, Iowa..	Winthrop .....
9185	National Starch Manf'g Co .....	Des Moines, Iowa ..	Lewiston .....
9184	National Starch Manf'g Co .....	Des Moines, Iowa ..	Foxcroft .....
9186	National Starch Manf'g Co .....	Indianapolis, Ind..	Hiram .....
9187	National Starch Manf'g Co .....	Indianapolis, Ind..	Dexter .....
9188	National Starch Manf'g Co .....	Indianapolis, Ind..	Augusta .....
9189	National Starch Manf'g Co .....	Indianapolis, Ind..	Bowdoinham .....
9190	National Starch Manf'g Co .....	Glencove, L.I., N.Y.	Saco .....
9071	Archer Starch Co .....	Bradley, Ill. ....	South Berwick .....
9191	Glucose Sugar Refining Co .....	.....	Biddeford .....
9192	Glucose Sugar Refining Co .....	.....	Belfast .....
9196	Glucose Sugar Refining Co .....	.....	Waterville .....
9198	Glucose Sugar Refining Co .....	.....	Skowhegan .....
9193	Glucose Sugar Refining Co .....	.....	Camden .....
9194	Glucose Sugar Refining Co .....	.....	Brunswick .....
9195	Glucose Sugar Refining Co .....	.....	Foxcroft .....
9197	Glucose Sugar Refining Co .....	.....	Waterville .....
9199	Cleveland Linseed Oil Co .....	.....	Skowhegan .....
9200	Cleveland Linseed Oil Co .....	.....	Rockland .....
9201	American Linseed Co. ....	Chicago, Ill .....	Brunswick .....
9202	.....	.....	Augusta .....
9203	.....	.....	Augusta .....
9205	.....	.....	Richmond .....
9204	American Milling Co .....	Chicago, Ill .....	Auburn .....
9206	E. W. Blatchford & Co .....	.....	Corinna .....
9207	E. W. Blatchford & Co .....	.....	Brunswick .....
9208	W. H. Haskell & Co .....	Toledo, Ohio. ....	Portland .....
9209	The Riverside Rolled Oats Co..	Riverside, Iowa ...	Bath .....



## ANALYSES OF SAMPLES.

Name of feed.	PROTEIN.		FAT.		Station number.
	Found— per cent.	Guaranteed per cent.	Found— per cent.	Guaranteed per cent.	
Cotton Seed Meal.....	46.13	43.00	96.40	9.00	9156
Cotton Seed Meal.....	46.44	43.00	10.29	9.00	9158
Cotton Seed Meal.....	47.75	46.12	9.93	9.20	9157
Cotton Seed Meal.....	46.19	46.12	10.29	9.20	9159
Cotton Seed Meal.....	47.44	46.12	9.56	9.20	9164
Chicago Gluten Meal.....	37.81	38.00	3.12	2.00	9165
Chicago Gluten Meal.....	35.19	38.00	2.56	2.00	9166
Chicago Gluten Meal.....	37.88	38.00	3.15	3.00	9167
Chicago Gluten Meal.....	40.56	38.00	3.36	2.00	9169
Chicago Gluten Meal.....	38.50	38.00	2.72	3.00	9172
Chicago Gluten Meal.....	39.44	38.00	3.20	3.00	9175
Chicago Gluten Meal.....	38.75	36.00	3.35	3.37	9176
Chicago Gluten Meal.....	35.56	39.50	3.06	3.37	9168
Chicago Gluten Meal.....	40.13	39.50	2.88	3.37	9170
Chicago Gluten Meal.....	39.44	39.50	3.31	3.37	9171
Chicago Gluten Meal.....	39.81	39.50	2.97	3.37	9173
Chicago Gluten Meal.....	36.06	39.50	2.70	3.37	9174
Chicago Gluten Meal.....	40.38	.....	4.41	.....	9100
Cream Gluten Meal.....	38.69	34.12	2.11	3.20	9177
Cream Gluten Meal.....	40.13	34.12	3.27	3.20	9178
Cream Gluten Meal.....	36.63	34.12	3.29	3.20	9179
Cream Gluten Meal.....	34.81	34.12	3.33	3.20	9180
Cream Gluten Meal.....	35.31	34.12	3.73	3.20	9181
Cream Gluten Meal.....	43.81	34.12	1.34	3.20	9182
King Gluten Meal.....	37.31	32.40	2.45	3.70	9183
King Gluten Meal.....	39.19	32.40	2.42	3.70	9185
King Gluten Meal.....	37.63	32.00	2.60	16.00	9184
King Gluten Meal.....	36.69	33.13	5.34	4.82	9186
King Gluten Meal.....	32.56	32.70	5.11	4.50	9187
King Gluten Meal.....	36.88	32.70	3.97	4.50	9188
King Gluten Meal.....	34.44	32.70	3.88	4.50	9189
Gluten Feed.....	27.69	28.40	3.65	4.30	9190
Gluten Feed.....	17.44	.....	3.21	.....	9071
Germ Oil Meal.....	22.06	25.50	13.99	10.50	9191
Germ Oil Meal.....	23.88	25.50	10.95	10.50	9192
Germ Oil Meal.....	23.50	25.50	13.05	10.50	9196
Germ Oil Meal.....	22.69	25.50	13.64	10.50	9198
Germ Oil Meal.....	24.50	25.00	9.03	3.00	9193
Germ Oil Meal.....	23.94	25.00	10.23	3.00	9194
Germ Oil Meal.....	21.25	25.00	12.25	3.00	9195
Germ Oil Meal.....	21.69	25.00	9.98	3.00	9197
Linseed Oil Meal.....	38.25	39.00	2.38	1.50	9199
Cleveland Flax Meal.....	39.25	39.00	2.81	1.50	9200
Old Process Oil Meal.....	31.94	32.00	7.71	5.00	9201
Old Process Oil Meal.....	33.38	.....	6.70	.....	9202
Linseed Oil Meal.....	37.56	38.00	2.31	1.00	9203
Linseed Oil Meal.....	38.44	38.00	2.56	1.00	9205
Sucrene Oil Meal.....	26.50	25.00	6.92	3.50	9204
Blatchford's Calf Meal.....	25.06	32.00	5.20	5.00	9206
Blatchford's Calf Meal.....	25.56	32.00	5.23	5.00	9207
Oat Feed.....	11.81	9.62	9.46	7.66	9208
Puritan Oat Feed.....	13.81	.....	6.04	.....	9209

## MANUFACTURERS AND PLACE OF SAMPLING.

Station number.	Manufacturer or Jobber.	Manufactured at	Sampled at
9210	American Cereal Co .....	Chicago, Ill .....	Westbrook .....
9211	American Cereal Co .....	Chicago, Ill .....	Rockland .....
9212	American Cereal Co .....	Chicago, Ill .....	Augusta .....
9213	American Cereal Co .....	Chicago, Ill .....	Foxcroft .....
9214	American Cereal Co .....	Chicago, Ill .....	Brunswick .....
9215	American Cereal Co .....	Chicago, Ill .....	Skowhegan .....
9216	American Cereal Co .....	Chicago, Ill .....	Hiram .....
9217	American Cereal Co .....	Chicago, Ill .....	Lewiston .....
9055	American Cereal Co .....	Chicago, Ill .....	Waldoboro .....
9218	American Cereal Co .....	Chicago, Ill .....	Bath .....
9219	American Cereal Co .....	Chicago, Ill .....	Hiram .....
9220	American Cereal Co .....	Chicago, Ill .....	Brunswick .....
9221	American Cereal Co .....	Chicago, Ill .....	Augusta .....
9222	American Cereal Co .....	Chicago, Ill .....	Belfast .....
9223	American Cereal Co .....	Chicago, Ill .....	Skowhegan .....
9224	.....	.....	Foxcroft .....
9225	O. Holway Co .....	Auburn .....	Waterville .....
9226	Husted Milling & Elevator Co..	Buffalo, N. Y .....	Brownfield .....
9227	Hunter Bros .....	St. Louis, Mo. ....	Auburn .....
9228	Hunter Bros .....	St. Louis, Mo. ....	Winthrop .....
9229	.....	.....	Dexter .....
9292	.....	.....	Castle Hill .....
9239	.....	.....	Monmouth .....
9233	American Cereal Co .....	Chicago, Ill .....	Richmond .....
9230	Muscatine Oat Meal Co .....	Muscatine, Iowa ..	Biddeford .....
9231	Muscatine Oat Meal Co .....	Muscatine, Iowa ..	Westbrook .....
9232	Muscatine Oat Meal Co .....	Muscatine, Iowa ..	Rockland .....
9234	The H-O Company .....	Buffalo, N. N .....	Freeport .....
9235	The H-O Company .....	Buffalo, N. Y .....	Freeport .....
9236	The American Cereal Co .....	Chicago, Ill .....	Westbrook .....
9237	The American Cereal Co .....	Chicago, Ill .....	Brunswick .....
9238	M. L. Crittenden .....	Buffalo, N. Y .....	Portland .....
9240	The Bowker Co .....	Boston, Mass. ....	Freeport .....
9241	The Bowker Co .....	Boston, Mass. ....	Gardiner .....
9242	The Bowker Co .....	Boston, Mass. ....	Brunswick .....
9243	The Bowker Co .....	Boston, Mass. ....	Camden .....
9244	The Bowker Co .....	Boston, Mass. ....	Brunswick .....
9245	The Bowker Co .....	Boston, Mass. ....	Richmond .....
9246	The Bowker Co .....	Boston, Mass. ....	Freeport .....
9247	The Bradley Fertilizer Co .....	Boston, Mass. ....	Portland .....
9248	.....	.....	Portland .....
9249	Armour Fertilizer Works .....	Chicago, Ill .....	Portland .....
9251	Henderson Milling Co .....	Henderson, Ky ....	Fryeburg .....
9252	.....	.....	Brunswick .....
9253	Kentucky Milling Co .....	Henderson, Ky ....	Bowdoinham .....
9254	Kentucky Milling Co .....	Henderson, Ky ....	Corinna .....
9250	American Cereal Co .....	Chicago, Ill .....	Camden .....

## ANALYSES OF SAMPLES.

Name of feed.	PROTEIN.		FAT.		Station number.
	Found— per cent.	Guaranteed — per cent.	Found— per cent.	Guaranteed — per cent.	
Vim Oat Feed. ....	7.13	6.50	2.90	2.50	9210
Quaker Dairy Feed .....	12.56	12.03	3.36	2.50	9211
Quaker Dairy Feed .....	13.13	12.03	3.28	2.50	9212
Quaker Dairy Feed .....	12.63	12.03	3.07	2.50	9213
Quaker Dairy Feed. ....	13.69	12.03	3.26	2.50	9214
Quaker Dairy Feed .....	11.31	12.03	2.68	2.50	9215
Quaker Dairy Feed .....	14.31	12.03	3.73	2.50	9216
Quaker Dairy Feed .....	12.13	12.03	2.97	2.50	9217
Quaker Oat Feed. ....	11.25	12.03	4.57	2.50	9055
Victor Corn and Oat Feed .....	9.25	8.23	3.23	3.00	9218
Victor Corn and Oat Feed .....	10.13	8.23	4.89	3.00	9219
Victor Corn and Oat Feed .....	9.69	8.23	4.33	3.00	9220
Victor Corn and Oat Feed .....	9.31	8.23	3.30	3.00	9221
Victor Corn and Oat Feed .....	9.00	8.23	4.00	3.00	9222
Victor Corn and Oat Feed .....	9.31	8.23	3.26	3.00	9223
Monarch Corn and Oat Feed .....	10.50	.....	6.45	.....	9224
Monarch Corn and Oat Feed .....	11.06	10.25	8.04	7.47	9225
Monarch Chop Feed .....	8.56	9.19	3.72	3.45	9226
Ned Chops .....	11.25	.....	6.24	.....	9227
Ned Chops .....	10.94	10.25	7.17	7.47	9228
Corn and Oat Feed .....	11.88	.....	3.34	.....	9229
Corn and Oat Feed .....	9.63	10.81	3.89	6.02	9292
Corn and Oat Chop .....	10.00	.....	5.50	.....	9230
Shumacher's Stock Feed or Corn, Oats and Barley .....	12.13	10.79	4.98	3.28	9233
Friend's Concentrated Dairy Food .....	8.13	10.70	7.15	3.70	9230
Friend's Concentrated Dairy Food .....	8.75	.....	3.39	.....	9231
Friend's Concentrated Dairy Food .....	8.13	10.70	3.28	3.70	9232
The H-O Co.'s Dairy Feed .....	17.88	18.00	3.84	4.50	9234
The H-O Co.'s Horse Feed. ....	13.44	12.00	4.66	4.50	9235
American Poultry Food .....	13.63	13.96	6.74	5.48	9236
American Poultry Food .....	13.81	13.96	6.80	5.48	9237
Sterling Provender. ....	8.75	8.82	3.81	5.55	9238
Bowker's Animal Meal .....	36.13	30.00	10.37	5.00	9240
Bowker's Animal Meal .....	39.06	30.00	8.49	5.00	9241
Bowker's Animal Meal .....	38.31	30.00	8.79	5.00	9242
Bowker's Animal Meal.....	41.00	30.00	8.29	5.00	9243
Bowker's Ground Beef Scraps .....	52.06	.....	18.15	.....	9244
Bowker's Ground Beef Scraps .....	49.19	30.00	15.40	20.00	9245
Bowker's Ground Beef Scraps .....	54.25	30.00	19.42	20.00	9246
Bradley's Superior Meat Meal .....	51.69	40.00	9.48	8.00	9247
Ground Beef Scraps for Poultry.....	66.81	50.00	13.10	9.00	9248
Meat Meal. ....	63.19	60.00	15.23	13.00	9249
Kentucky Mixed Feed .....	13.75	12.00	3.79	3.00	9251
Purity Mixed Feed. ....	13.88	.....	4.12	.....	9252
Jersey Mixed Feed .....	12.63	11.50	3.83	3.50	9253
Jersey Mixed Feed .....	14.63	.....	4.03	.....	9254
Buckeye Wheat Feed.....	18.94	16.21	4.76	4.48	9250

## SUMMARY OF ANALYSES.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
American Cotton Oil Co.'s Prime Cotton Seed Meal.	16	Highest Lowest Average	46.69 42.63 44.25	..... *43.00 .....	13.91 8.64 10.25	9.00
R. W. Biggs & Co.'s "Canary" Brand Cotton Seed Meal.	9	Highest Lowest Average	44.94 40.13 43.13	.... 43.00 .....	14.16 8.99 10.68	9.00
F. W. Brod� & Co.'s Owl Brand Cotton Seed Meal.	5	Highest Lowest Average	47.19 44.06 45.68	... 43.00 .....	10.29 8.76 9.39	9.00
Chapin & Co.'s Cotton Seed Meal.	10	Highest Lowest Average	46.81 40.63 44.58	..... 43.00 .....	11.11 8.48 9.63	9.00
A. R. Hopkins & Co.'s Prime Cotton Seed Meal.	1	.....	43.06	40.00	9.29	8.00
Butler, Breed Co.'s Cotton Seed Meal.	1	.....	36.69	25.00	8.95	6.00
Humphreys, Goodwin & Co.'s "Dixie" Brand Cotton Seed Meal.	5	Highest Lowest Average	46.00 43.50 44.80	..... 43.00 .....	11.22 9.16 9.97	9.00
Hunter Brother's Prime Cotton Seed Meal.	3	Highest Lowest Average	46.75 45.63 46.27	.... 43.00 .....	9.75 8.67 9.27	9.00
Independent Cotton Oil Co.'s Prime Finely Ground Cotton Seed Meal.	1	.....	45.69	43.00	13.75	9.00
J. E. Soper & Co.'s Prime Cotton Seed Meal.	1	.....	42.63	43.00	7.97	9.00
Manufacturers unknown Cotton Seed Meal.	2	Highest Lowest Average	46.44 46.13 46.29	..... 43.00 .....	10.29 9.64 9.27	9.00
Manufacturers unknown Cotton Seed Meal.	3	Highest Lowest Average	47.75 46.19 47.13	..... 46.12 .....	10.29 9.56 9.93	9.20
Summary of all high grade cotton seed meals analyzed.	56	Highest Lowest Average	47.75 40.13 44.62	46.10 41.00 .....	14.16 ..... 10.05	
Low grade cotton seed meal.	1	.. . . .	36.69	25.00	8.95	6.00
Glucose Sugar Refining Co.'s Chicago Gluten Meal.	13	Highest Lowest Average	40.56 35.19 38.44	39.50 38.00 36.00	4.41 2.70 3.14	3.37 3.00 2.00
Charles Pope Glucose Co.'s Cream Gluten Meal.	6	Highest Lowest Average	43.81 34.81 38.23	..... 34.12 .....	3.73 1.34 2.84	3.20

\* One sample guaranteed 41.50 carried 41.90 per cent of protein.

† One sample only guaranteed to carry 25 per cent of protein had 36.69 per cent protein.



## SUMMARY OF ANALYSES—CONTINUED.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
National Starch Man'g Co.'s King Gluten Meal.	7	Highest Lowest Average	39.19 32.56 36.39	32.40 32.00 33.13 32.70	5.34 2.42 3.68	3.07 16.00 4.82 4.05
National Starch Man'g Co.'s Gluten Feed.	1	.....	27.69	28.40	3.65	4.30
The Archer Starch Co.'s Gluten Feed.	1	.....	17.44	.....	3.21	
Glucose Sugar Refining Co.'s Germ Oil Meal.	8	Highest Lowest Average	24.50 21.25 22.94	25.50 25.00 .....	13.99 9.03 10.39	10.50 3.00
The Cleveland Linseed Oil Co.'s Linseed Oil Meal.	1	... ..	38.25	39.00	2.38	1.50
The Cleveland Linseed Oil Co.'s Cleveland Flaxmeal.	1	.....	39.25	39.00	2.81	1.50
American Linseed Co.'s Old Process Oil Meal.	1	.....	31.94	32.00	7.71	5.00
American Milling Co.'s Sucrene Oil Meal.	1	.....	26.50	25.00	6.92	3.50
E. W. Blatchford & Co.'s Blatchford's Calf Meal.	2	Highest Lowest Average	25.56 25.06 25.31	..... 32.00 .....	5.23 5.20 5.22	5.00
W. H. Haskell & Co.'s Oat Feed.	1	... ..	11.81	9.62	9.46	7.66
Riverside Rolled Oats Co.'s Puritan Oat Feed.	1	.....	13.81	.....	6.04	
American Cereal Co.'s Vim Oat Feed.	1	... ..	7.13	6.50	2.90	2.50
American Cereal Co.'s Quaker Dairy Feed.	7	Highest Lowest Average	14.31 11.31 12.82	..... 12.03 .....	3.73 2.68 3.19	2.50
American Cereal Co.'s Quaker Oat Feed.	1	... ..	11.25	12.03	4.57	2.50
American Cereal Co.'s Victor Corn and Oat Feed.	6	Highest Lowest Average	10.13 9.00 9.45	..... 8.23 .....	4.89 3.23 3.84	3.00
O. Holway Co.'s Monarch Corn and Oat Feed.	2	Highest Lowest Average	11.06 10.50 10.78	..... 10.25 .....	8.04 6.45 7.25	7.47
Husted Milling & Elevator Co.'s Monarch Chop Feed.	1	.....	8.56	9.19	3.72	3.45
Hunter Brothers' Ned Chops.	2	Highest Lowest Average	11.25 10.94 11.10	..... 10.25 ... ..	7.17 6.24 6.71	7.47
American Cereal Co.'s Schumacher's Stock Feed or Corn, Oats and Barley.	1	... ..	12.13	10.79	4.98	3.28



## SUMMARY OF ANALYSES—CONCLUDED.

	Number of analyses.		PROTEIN.		FAT.	
			Found— per cent.	Guaranteed— per cent.	Found— per cent.	Guaranteed— per cent.
The Muscatine Oat Meal Co's Friend's Conc'nt'd Dairy Food	3	Highest Lowest Average	8.75 8.13 8.34	..... 10.70 .....	7.15 3.28 4.61	3.77
The H-O Company's Dairy Feed.	1	.....	17.88	18.00	3.84	4.50
The H-O Company's Horse Feed.	1	.....	13.44	12.00	4.66	4.50
American Cereal Co.'s American Poultry Food.	2	Highest Lowest Average	13.81 13.63 13.72	..... 13.96 .....	6.80 6.74 6.77	5.48
M. L. Crittenden's Sterling Provender.	1	.....	8.75	8.82	3.81	5.55
The Bowker Co.'s Bowker's Animal Meal.	4	Highest Lowest Average	41.00 36.13 38.63	..... 30.00 .....	10.37 8.29 8.99	5.00
The Bowker Co.'s Bowker's Ground Beef Scraps	3	Highest Lowest Average	54.25 49.19 51.83	..... 30.00 .....	18.15 15.40 17.66	20.00
The Bradley Fertilizer Co.'s Bradley's Superior Meat Meal	1	.....	51.69	40.00	9.48	8.00
Manufacturer's unknown Ground Beef Scraps for Poult.	1	.....	66.81	50.00	13.10	9 00
Armour Fertilizer Works Meat Meal.	1	.....	63.19	60.00	15.23	13.00
Henderson Milling Co.'s Kentucky Mixed Feed.	1	.....	13.75	12.00	3.79	3.00
Manufacturers unknown Purity Mixed Feed.	1	.....	13.88	.....	4.12	
Kentucky Milling Co.'s Jersey Mixed Feed.	2	Highest Lowest Average	14.63 12.63 13.63	..... 11.50 .....	4.03 3.83 3.93	3.50
American Cereal Co.'s Buckeye Wheat Feed.	1	.....	18.94	16.21	4.76	4.48

## ANALYSES OF BRANS AND MIXED FEEDS COLLECTED IN 1900.

Station number.	Manufacturer or dealer.	Sampled at	Name of Feed.	Protein— per cent.
9255	Acme Milling Co'.....	Augusta .....	Acme Mixed Feed .....	17.56
9256	Alma Roller Mills .....	Freeport .....	Straight Alma Mixed Feed .....	16.69
9257	Austed & Burke .....	Dexter .....	Mixed Feed .....	17.25
9258	Berger, Anderson & Co .....	Saco .....	Badger Mixed Feed .....	18.56
9259	Blish Milling Co.....	Foxcroft .....	Winter Wheat Mixed Feed .....	18.13
9263	Chapin & Co. ....	Skowhegan .....	Mixed Feed .....	15.63
9260	Doten Grain Co .....	Portland .....	Royal Mixed Feed .....	17.38
9261	Hunter Bros. ....	South Brewer....	Hunter Bros.' Mixed Feed .....	17.75
9262	J. Jencks .....	Skowhegan .....	Winter Wheat Mixed Feed .....	15.56
9264	Lawrenceburg Roller Mills Co .....	South Brewer....	Snow Flake Mixed Feed .....	17.88
9265	R. P. Moore Milling Co..	Brunswick .....	King Feed, Pure Bran and Middlings .....	18.25
9078	Portland Milling Co....	Newport .....	Champion Mixed Feed....	15.25
9088	Portland Milling Co .....	Newport .....	Champion Mixed Feed....	16.94
9266	Portland Milling Co .....	Waterville .....	Champion Mixed Feed .....	16.31
9267	Rex Milling Co. ....	Bowdoinham .....	Mixed Feed .....	17.56
9268	The Shelby Mill Co .....	Bath .....	Mixed Feed .....	17.88
9269	F. W. Stock .....	Norway .....	M. F. Mixed Feed .....	16.88
9270	David Stott .....	Waterville .....	Stott's Mixed Feed .....	16.50
9271	Valley City Milling Co ..	Richmond .....	Farmers Favorite Mixed Winter Wheat Cow Feed .....	17.44
9272	Valley City Milling Co..	Waterville .....	Farmers Favorite Mixed Winter Wheat Cow Feed .....	16.25
9273	Zenith Milling Co .....	Bowdoinham .....	Mixed Feed .....	17.81
9274	L. P. Snow .....	Brunswick .....	Mixed Feed .....	16.25
9275	Hunter, MacMaster Co..	Pittsfield .....	Mixed Feed .....	13.50
9276	L. N. Littlehale.....	Rockland .....	Faist's Mixed Feed .....	18.19
9277	H. C. Morse .....	Waterville .....	Mixed Feed.....	16.56
9070	C. B. Cummings & Son..	Norway .....	Mixed Feed .....	12.56
9074	C. A. S. Holland .....	Portland .....	Mixed Feed .....	16.06
9081	.....	Kennebunk .....	Kansas Feed.....	18.56
9084	Steward Bros .....	Skowhegan .....	Fancy Mixed Feed.....	15.06
9108	Judkins & Gilman .....	East Newport....	Ground Wheat Feed .....	18.25
9278	Austed & Burke .....	Camden .....	Bran Best Flour Wm. Tell Bob White Golden Fleece .....	16.31
9279	W. A. Coomb's Mills ....	Dexter .....	Winter Wheat Bran .....	16.38
9280	Schultz, B. & Co .....	Foxcroft .....	Bran .....	15.81
9086	David Stott .....	Newport .....	Stott's Pure Winter Wheat Bran .....	15.81
9109	David Stott .....	East Newport....	Stott's Pure Winter Wheat Bran .....	15.13
9281	David Stott .....	Foxcroft .....	Stott's Pure Winter Wheat Bran .....	15.94
9282	Valley City Milling Co..	Skowhegan .....	Michigan Winter Wheat Bran .....	17.56
9283	Voigt Milling Co.....	Skowhegan .....	Voigt's Choice Winter Wheat Bran .....	17.00
9284	E. S. Woodworth Co.....	Norway .....	Snow's Flaky Bran .....	16.94
9285	Pillsbury's Mill .....	Foxcroft .....	Pillsbury's Bran .....	16.31
9286	R. H. Soule & Co.....	South Windham ..	Ballard's Bran .....	16.94
9079	.....	Newport .....	Bran .....	15.81
9087	J. F. Longley .....	Newport .....	Bran .....	16.81
9103	Washburn Crosby .....	North Gorham....	Bran .....	16.13
9111	F. W. Stock .....	Corinna .....	Bran .....	15.69
9287	Washburn Crosby Co....	Augusta .....	Standard Middlings .....	19.13

## COTTONSEED MEAL.

Pure cottonseed meal is made by grinding the seed after the white down, which remains upon the seed as it comes from the cotton gin, and the hard hulls have been removed. Thus prepared, cottonseed meal may carry from 40 to 53 per cent of protein. The analyses of 57 samples are reported. The guarantees for the high grade cottonseed meal varied from 41 per cent of protein and 9 per cent of fat to 46.12 per cent protein and 9.2 per cent fat. The lowest protein found was 40.13 per cent and the lowest fat 7.97 per cent. The averages are considerably above the guaranteed percentages.

Only 6 of the 57 samples were below guarantee in protein. One sample was nearly 3 per cent below in protein but the fat was 5 per cent above the guarantee, thus indicating that the falling off in protein was due to the imperfect removal of the fat and not to poor seed or the addition of adulterants. The other 5 samples fell less than 2 per cent below the guaranteed protein.

Only one sample of low grade cottonseed meal was found by the inspector and none have been received from correspondents. At the first inspection under the law (December, 1897) 12 samples of low grade unguaranteed cottonseed meals carrying from 20 to 30 per cent of protein were found. If the law regulating the sale of concentrated commercial feeding stuffs has accomplished nothing else, this driving low grade cottonseed meal out of the Maine market is worth to the agriculture of the State more than the cost of inspection.

## GLUTEN MEALS AND FEEDS.

Gluten meals and gluten feeds are by-products left in the manufacture of starch and glucose from Indian corn. Corn consists largely of starch. The waste product from the manufacture of starch or sugar is relatively much richer in oil and protein than corn. Most factories are removing part of the corn oil from the waste, so that nearly all the gluten meals carry but little oil, e. g., Chicago Gluten Meal, which two years ago carried 7 to 9 per cent of fat, now has from 2.50 to 4 per cent. This reduction in fat is probably an advantage, as feeding corn oil to dairy animals seems to have a tendency to make softer butter.

Chicago Gluten Meal was as in the past found at many places. Three different guarantees were found on the different lots, ranging from 36 to 39.5 per cent in protein and from 2 to 3.37 per cent in fat. The more common guarantee is that given by the State agents—protein 38 per cent and fat 2 per cent. The average of the 13 samples examined was protein 38.44 per cent and fat 3.14 per cent.

Cream Gluten, made by the Chas. Pope Glucose Co., carries the same guarantee as in the past, 34.12 per cent protein and 3.20 per cent fat. They have evidently changed the process of manufacture, for the goods are much improved in protein content. Eleven samples taken in December, 1899, carried from 30.31 to 34.94 per cent protein, with an average of 32.99 per cent. Six samples collected in December, 1900, carry 34.81 per cent (almost the same as the highest in 1899) to 43.81 and the 6 samples taken in December, 1900, average 38.23 per cent, or over 5 per cent more protein than in 1899. The fat content remains practically unchanged. In composition the goods very closely resemble Chicago Gluten Meal.

A year ago part of the King Gluten Meal carried nearly 16 per cent of fat. The King Gluten Meal now found in the State has a fat content ranging from 2.42 per cent to 5.34 with an average of 3.68 per cent. None of the goods correspond in fat to the original guarantee (16 per cent) found on occasional lots. The goods carry on the average (7 samples) 36.39 per cent protein and 3.68 per cent fat, rather more fat and 2 per cent less protein than either Chicago or Cream Gluten.

Very little gluten feed is used in the State. The Natural Starch Manufacturing Company's gluten feed (1 sample) agrees fairly well with the guarantees. One unguaranteed lot of very poor gluten feed, made by the Auburn Starch Company of Bradley, Ill., was found at Brewer. Very little of this brand has been sold.

Germ Oil Cake, a corn product, is quite generally distributed in the State. It is sold at a somewhat less price than gluten meal. In no case does it come up to the guaranteed protein. On the average the 8 samples carried 2 per cent less protein than the more common guarantee of 25 per cent. As a source of protein it is about as good as rather poor gluten feed and has



less than two-thirds the value of good gluten meal. Only one sample of Sucrene oil meal was found. It carried more of protein and fat than called for by the guarantees. In composition it resembles a good gluten feed.

#### OAT FEEDS. CORN CHOPS.

The various oat feeds, corn chops and corn and oat feeds are still used in the State to a large extent. Some of these are the straight refuse from the manufacture of oat meal and others like the H-O Company's goods are mixtures of such refuse with other by-products of higher protein content. They are all well up to their respective guarantees and no fault can be found with the manufacturers for their desire to sell these goods, as they are making no claims for nutrients which the goods do not contain. The intelligent buyer of feeding stuffs, who has his barns well filled with hay, corn fodder and silage, will have very little use for these feeds low in protein content.

The value of by-products of the oat as cattle foods has been discussed in bulletin 70 of this Station.

#### ADULTERATED BRANS. MIXED FEEDS.

Bulletin 63 published in April, 1900, contained the following:

"In the fall of 1899 the Station began to receive from correspondents samples of goods that were bought for bran, but were of very low grade, carrying from 9 to 12 per cent protein, instead of the 15 to 17 per cent that good bran ought to carry. Investigation brought out the fact that certain mills in Kentucky and Tennessee and perhaps in other sections as well were adulterating bran by grinding and mixing with it such materials as corn cobs, the waste from corn broom factories and the like."

These goods are still being sold in the State (one concern having bought tax tags for 1,500 tons since March, 1900), but they are sold under the law and the purchaser knows from the guarantee what the goods are. These so-called mixed feeds carry more protein and fat than the guarantees call for. If the users of these foods are not getting a fair value for their money, they alone are at fault. The law is doing in this instance exactly what it was intended to do. It does not prohibit the sale of such goods but makes it so that they must be offered on their merits.



## WHEAT BRAN AND MIDDLINGS—MIXED FEED.

The refuse products in the milling of wheat are very important cattle foods. With the exception of Indian corn, whole and ground, there is probably no other class of foods used so largely in this State as food for dairy stock. "Wheat, rye and buck-wheat brans or middlings, not mixed with other substances, but sold separately, as distinct articles of commerce" are, under the law, exempt from inspection. In order that the character of these feeds might be investigated, soon after the law went into effect the Station analyzed a large number of the wheat offals which were being sold in the State. As this class of feeds are, in addition to their mineral matters, of chief importance as a source of nitrogen, only the protein was determined in them. All suspicious samples were examined under the microscope, but in no instance was foreign matter found that indicated adulteration. In a few cases oat and barley hulls were observed but in no greater amount than sometimes occurs in wheat.

As the result of this study and after consultation with the Secretary of the Board of Agriculture it was decided that the spirit of the law would not be broken if all wheat offals should be considered as exempt from its requirements, even though they might be called mixed feeds.

As noted elsewhere in this bulletin, in the fall of 1899 it was found by samples sent from correspondents that advantage was being taken of this exemption and that wheat brans adulterated with worthless foreign materials were being sold under the general name of mixed feeds and that one company had even the face to call such a mixture "purity" mixed feed. Because of this discovery the inspector was instructed to collect samples of brans, etc., paying particular attention to goods of suspicious appearance. As a result 24 samples were found of these low grade goods. The results were printed in bulletin 63 of this Station.

After consultation with the Secretary of the Board of Agriculture (who is by law the prosecuting officer of violations of the feeding stuffs law), it was decided to reverse the earlier decision and bulletin 63 contained the following statement:

"In view of the fact that these adulterations make it necessary for the Station to examine all mixed feeds in order to see

whether they are straight wheat offals or not, it has been decided that from this time on the strict letter of the law will be observed, and that the only concentrated feeds which will not be subject to the requirements are the meals made from pure grains, and wheat, rye and buckwheat brans or middlings. All mixed feeds, even though they are the straight refuse from the milling of wheat, will be hereafter included in the requirements."

The large dealers in the State said that they believed that the publicity which had been given to these fraudulent goods would result in their not being sold except under the provisions of the law. They also explained that the goods labelled mixed feed by some mills were identical with those called brans by others, that it would be difficult to get these mills to change their labeling and that the strict enforcement of the letter of the law would result in a discrimination against perfectly reliable goods carrying the name mixed feed. As a result it was decided to wait and see what the outcome would be and no attempt was made to see that the later ruling was complied with.

When the inspector made his rounds in December, 1900, he was instructed to draw samples of brans and mixed feeds. As a result 46 samples were collected and analyzed. These goods were surprisingly high in protein. The lowest of them was labelled "bran" and had the appearance of being unadulterated. The two low samples of mixed feed were also probably straight goods.

The value of the inspection is strikingly shown in that only 3 at all suspicious samples were found in December, 1900, when a year earlier 24 samples of low grade goods were obtained.

For the reasons above stated and because of the freedom of this class of goods at present from adulterations, the Station will continue to treat the straight products from the milling of wheat as not coming under the requirements of the law. Brans, mixed feeds and more especially middlings vary greatly in feeding value. Large users will always find it to their advantage to send samples of these goods to the Station for analysis. This analysis will be made free of charge and the results promptly returned.



## LIST OF BULLETINS PUBLISHED IN 1900.

---

- 59 Feeding Stuff Inspection.
  - 60 Fertilizer Inspection.
  - 61 Notes on Insects and Plants.
  - 62 Historical Sketch of the Maine Station.
  - 63 Feeding Stuff Inspection.
  - 64 Poultry Experiments in 1899.
  - 65 Coffee Substitutes, Nut Oils, Testing Seeds, Potato Pomace.
  - 66 Fertilizer Inspection.
  - 67 Digestion Experiments with Sheep.
  - 68 Experiments with Insecticides upon Potatoes.
  - 69 Finances, Meteorology, Index. (In press).
- 

Copies of the above will be sent free on application to any address in Maine. A list of Station publications which are still available for distribution can be had on application.